DITCHBANK AND AQUATIC HERBICIDES Montana Department of Agriculture MAY, 2003

Aquatic Herbicides for Irrigation Ditchbanks

2,4-D: Liquid. Overspray limited to no more than 2 feet on each side of ditch, with applications made moving upstream. Other 4 # amine 2,4-D products may also be registered for this use, please refer to the label.

Amine 4 Selective Weed Killer, Wilbur-Ellis Savage, 2,4-D, Platte Chemical Co 2,4-D Amine No. 4 Herbicide, Wilbur-Ellis Cornbelt 4lb Amine, VanDiest

Amine 400, PBI/Gordon

Barrage HF, 2,4-D Ester, Helena Chemical Co
Weedestroy AM-40, Riverdale

Barrage, 2,4-D Ester, Helena Chemical Co

Weed Rhap A-4D, Helena Chemical Company

Glyphosate: For use on emergent vegetation only. Do not apply within 1 mile of a potable water intake. Rodeo, Monsanto AquaPro, SePRO Corp.

Aquatic Herbicides for Irrigation Canals [Flowing Water]

Acrolein [Restricted Use*]: For control of floating and submerged plants in irrigation ditches only. Extremely toxic to aquatic organisms. Six day waiting period for release of treated water into state waters. Treated waters may be used for irrigation immediately. Requires specialized equipment and training from the product registrant.

Magnacide H, Baker Performance Chemicals

Copper Carbonate* For use in potable water sources, lakes, rivers, reservoirs, ponds, crop and non-crop irrigation ditches, fish, golf course, ornamental, swimming and fire ponds, and fish hatcheries.

Captain* liquid copper algaecide, SePRO Corp.

Nautique* aquatic herbicide, SePRO Corp.

(*Metallic copper equivalent, 9.1%)

Copper ethanolamine: Liquid and granular. Primarily used as an algaecide. Liquid for all forms of algae in flowing and still water. Chelated form helps to prevent precipitation of copper with particulates in water. No restrictions on treated water. Clearigate is an emulsified formulation.

Clearigate, Applied Biochemists Cutrine-Plus, Applied Biochemists, Inc.

Copper sulfate pentahydrate: For use as algaecide in lakes and ponds and for control of filamentous/attached algae and selected pondweeds in irrigation ditches. Efficiency is dependent on water quality conditions - alkalinity, temperature, and turbidity. Prolonged applications may result in accumulation of toxic levels of copper in bottom sediments.

Blue Viking Kocide Copper Sulfate Star Glow Powder, Griffin Corp.

Blue Viking Kocide Copper Sulfate Star Shine Crystals, Griffin Corp.

Tennessee Brand Copper Sulfate Crystals, Griffin Corporation

Tennessee Brand Copper Sulfate Instant, Griffin Corporation

various others

Diuron: **For dry canals only. Diuron must be fixed into the canal soil with at least 4 inches of water prior to use of the canal for irrigation. Drain off and waste remaining water before using the ditch. Trees with roots extending into the treated area may be injured.

Direx 80DF, Griffin Corp. Direx 4L, Griffin Corp.

Endothall [Restricted Use*]: Liquid or granular. Hydrothol products are extremely toxic to fish.

Restrictions of from 7 to 25 days on water use and fishing.

Aguathol Granular Aguatic Herbicide, ELF Atochem NA

Aquathol Super K Granular Aquatic Herbicide, ELF Atochem NA

Hydrothol 191 Granular Aquatic Algaecide and Herbicide, ELF Atochem NA

Hydrothol 191 Aquatic Algaecide and Herbicide, ELF Atochem NA

Fluridone: Liquid and granular. For control of submergent and some emergents in lakes and ponds. Systemic control. Requires 30 to 90 days for control.

Sonar AS Specialty Herbicide, SePRO Corp.

Sonar SRP Specialty Herbicide, SePRO Corp.

Sonar PR Specialty Herbicide, SePRO Corp.

Glyphosate: For use on emergent vegetation only. Do not apply within 1 mile of a potable water intake. Rodeo, Monsanto

AquaPro Specialty Herbicide, SePRO Corp.

Xylene [Restricted Use*]: For control of algae and submergent vegetation in irrigation systems only. Extremely toxic to aquatic organisms. Requires secondary down canal applications. Best results when applied before submergent growth begins to impede flow. Treated water may be flood or furrow irrigated immediately after treatment. Must be below 10 ppm before returned to state waters.

T Chem Aquatic Weed Killer, Thatcher Company

Aquatic Herbicides for Lakes & Ponds

Copper ethanolamine: Liquid and granular. Primarily used as an algaecide. Liquid for all forms of algae in flowing and still water. Granular for attached forms of algae in still water only. Chelated form helps to prevent precipitation of copper with particulates in water. No restrictions on treated water. Clearigate is an emulsified formulation.

Clearigate, Applied Biochemists Cutrine-Plus, Applied Biochemists, Inc. Cutrine-Plus Granular, Applied Biochemists, Inc.

Copper ethylenediamine: Recommended for control of hydrilla, Brazilian elodea and southern naiad. Komeen Aquatic Herbicide, Griffin Corp.

Copper sulfate pentahydrate: For use as algaecide in lakes and ponds and for control of filamentous/attached algae and selected pondweeds in irrigation ditches. Efficiency is dependent on water quality conditions - alkalinity, temperature, and turbidity. Prolonged applications may result in accumulation of toxic levels of copper in bottom sediments.

Blue Viking Kocide Copper Sulfate Star Glow Powder, Griffin Corp. Blue Viking Kocide Copper Sulfate Star Shine Crystals, Griffin Corp. Tennessee Brand Copper Sulfate Crystals, Griffin Corporation

Tennessee Brand Copper Sulfate Instant, Griffin Corporation

various others

Copper-triethanolamine complex: Recommended for filamentous, planktonic, and branched algae. K-Tea Algaecide, Griffin Corporation

2,4-D: Granular. Applied to lake or pond bottoms only. Not for use in waters used for irrigation, livestock or domestic purposes. Recommended for control of watermilfoil and water stargrass only. pH's below 6.0 favor herbicide action; above 8.0 may reduce action.

Aqua-Kleen, Aventis Crop Science Navigate, Applied Biochemists

2,4-D: Liquid. Special Local Need [24(c)] registration in Montana only for use along the edges of ponds, lakes, reservoirs, wetlands, drainage ditches, rivers and streams for control of purple loosestrife. Amine 400, PBI/Gordon

Diquat: For use in lakes, ponds, and drainage ditches only. Control all forms of aquatic plants. Fourteen day use restriction on treated water. Only treat 1/3 to 1/2 of the water body at one time in fish-bearing waters. Requires protective clothing.

Watrol, NCH Corporation Sea-Cide Aquatic Weed Killer, Drummond American Corp. Weedtrine-D, Applied Biochemists Reward, Zeneca

Endothall [Restricted Use*]: Liquid or granular. Hydrothol products are extremely toxic to fish. Restrictions of from 7 to 25 days on water use and fishing.

Aquathol Granular Aquatic Herbicide, ELF Atochem NA

Aquathol K Aquatic Herbicide, ELF Atochem NA

Hydrothol 191 Granular Aquatic Algaecide and Herbicide, ELF Atochem NA

Hydrothol 191 Aquatic Algaecide and Herbicide, ELF Atochem NA

Glyphosate: For use on emergent vegetation only. Do not apply within 1 mile of a potable water intake. AquaPRO, SePRO Rodeo, Monsanto

This list may not be complete and is not an endorsement of any product or company. Please contact the Montana Department of Agriculture at 406-444-5400 to determine if a specific pesticide is currently registered in Montana. Applicators are responsible for reading and following all label directions. Refer to the pesticide label for water use restrictions. Restricted Use* aquatic herbicides may only be purchased and applied by certified pesticide applicators holding an aquatic certificate or permit.